parts with more and more *Lympha* daily.

13. The great inftrument of thecirculation of the blood is the *Syftole,* or vibration of the heart, which yet would not be fufficient from hindring the coagulation of the blood, without a continual fupply of *Lympha* to dilute it.

An Exact Account of the Three late Conjunctions *of* Saturn *and* Jupiter, *(within the fpace or lefs than feven months according to accurate Obfervations)* viz. Octob. 14.^{82}, &c. *Together with an Account of what other Conjunctions of them there happened for more than* 100: *years laft; beginning at the year* 1563: *And a Table Computed whereby to make an Eftimate of what other Conjnnctions have happened for the time paft, or that will happen for the time to come. All by* J. F. Aftron. Reg. & R. S. S.

WHilft the Common People have dmired to fee the two Superior Planets *Saturn* and *Jupiter* continue fo near each other the whole year, and our Aftrologers have affrighted them with fearful Predictions of direful events to fuccede this appearance, the
more

more Judicious are defirous to know how often and at what time their Conjunctions happen, that by compareing their Tables of thefe Planets Motions with the obferved appearance, they may be the better able to correct them and render them more agreeable to the Heavens. Examineing our Ancient Ephemerides I do not find that Three Conjnnctions of *Saturn* and *Jupiter* have ever hapned in one years fpace, fince they were firft in ufe to this prefent. Thofe of *Moletius* Calculated from the Alphonfine Tables indeed make three in the fpace of Eight Months betwixt *Auguft* 1563. and *April* 1564 inclufive. But the Ephemerides of *Stadius* Calculated from the *Prutenick*, make onely one, on the 26 of *Auguft* of which *Junctinus* gives us the following Obfervation in the Preface to his Aftronomical Tables. *Anno* 1563. *Augufti* 24. *hora* 14. 36 *poft Meridiem Aurangæ*, Jupiter *à parte feptentrionis cooperiebat quafi* Saturnum, *qui erat à parte Meridionali, utraque autem harum Stellarum, in fine 28 gradus Cancri deprehendebatur*, *Riccioli* hence concludes that the Planet Jupiter covered fome part of *Saturn* at this time. But without reafon, for the words *quafi cooperiebat* intimate not that the one did corporally cover the other, but rather that there was fome fmall Interval betwixt them. The *Caroline* tables make the vifible latitude of *Saturne* now 11′ 45″, of *Jupiter* 26 10′ both North, the Conjunction being fome few dayes paft : but becaufe their latitudes alter flowly we may hence conclude the difference 8′ 25′ to have been nearly theirdiftance at that time, thefe Tables being grounded on the Tychonick obfervations made within lefs than 40 years after, and fhewing the Latitudes of the Planets well at this time near 100 years later we may conclude to have anfwered them as well then; and if we confider how fmall a fpace the diftance of 8½ minutes appear to the naked eye in the Heavens, efpecially betwixt two fuch bright Planets as *Saturn* and *Jupiter* are, that the *Caroline* diftance agrees very well with the words of *Junctinus*

Conjurction in fine ♄ 1563

K k

nus and that *Riccioli* was grofsly miftaken,

1583.
Their next Conjunction according to *Maginu*'s Epheme-
rides founded on the Prutenick numbers, was *April* 29.
1583. in 21. deg. of ♓, the Sun being then in 17. deg. of ♉
fo thatthe Planets rifeing before him in fignes of fhort
afcention and with South Latitude this congrefs could not
be obferved by the noble *Tycho* who was mindful of it as
appears by this note in pag. 55. of his Hiftoria Cœleftis.
May 30. A. M. *quo primum poft Conjunctionem Saturnum vi-
dimus, captæ funt diftantiæ inter Jovem & Saturnum per Ra-
dium.*

	♄	ʹ		°	ʹ
hora	1	47		3	24
	1	50		3	24

1603.
The fame Ephemerides fhew the next Conjunction of
Saturn and *Jupiter* 1603. *Dec.* 14. at noone, in 9° 36ʹ of ♐
but the Ingenious *Kepler* and our Sr. *Chriftopher Heydon*
found it by obfervation feven days fooner, or the Seventh
day of the fame moath in the Morning, in near Eight
degrees of ♐ the Planets being then but newly emerged
from the Rayes of the Sun.

1623.
The Ephemerides of the Learned *Kepler* Calculated from
his own *Rudolphine Tables* make the next Conjunction 1623
betwixt the 7th and 8th of *July*, in 6° 46ʹ of ♌, the Planet
Saturn being then only 4 minutes to the North of Jupiter,
but this firft Conjunction in the fiery Trigon hapning un-
der the Suns beams was not obfervable.

1643.
By the fame Tables, and Ephemerides of *Eichftade* Cal-
culated from them, thefe Planets met again in the 25th de-
dree of ♓, betwixt the 15th and 16th of *Feb.* 1643, with
a degree difference of Latitude.

1663.
By the joynt confent of *Eichftades* and our *Wings* Ephe-
merides the fame Planets were in Conjunction again, 1663
on the 10th of *October* at Noone in 13°. 30ʹ of ♐ with one
degree difference of Latitude, this Conjunction was ob-
ferveable

fervable after Sun-fet in our Latitude,but I hear not that a-
ny one obf.rved it.

In every of thefe years there happened only one Con-
junction of the two Superiors, nor is it poffible that there
fhould be more except the Heliocentrical Conjunction fall
near the Oppofition of the Sun ; for then there may be
Three, Two Direct, and One Retrograde,as has been with-
in the fpace of Seaven Months, betwixt *October* and *May*
laft inclufive, of which the true times are determined from
the following Obfervations.

1682.		*h.*	*l*			
Octob.	5.	17.	51. betwixt the Centers of *Sat. & Jup.*		34	54.
		54		rep.	34	48.
12	13.[h]	49'. betwixt their Centers			16	02
		54.		rep.	16	04
	14	03. Betwixt their next limbes			15	22
17.	14	10. Betwixt their Centers			20	09.
		17.		rep.	20	12.
		21.		again	20	14.
		25 Betwixt their next limbes			19	44.
	14	33. Betwixt their remoter limbes			20	37.
				°	'	''
	15	09. *Saturn* from the heel of *Caftor*		48	32	25.
		14. *Jupiter* from the fame Star		48	45	05.
		17.		rep. 48	45	20.
		20. *Saturn* from the fame Star again		48	32	20.
		50. Betwixt their Centers again			20	30.
19	15	41. Betwixt their remote limbs			26	02
		45. Their Centers			25	37.
		47. Their next limbs			25	11.
22.18.		25. Betwixt their Centers			33	19.
		29.		rep.	33	26.

The

The diſtances betwixt the Planets were meaſured with the Micrometer and ſixteen foot Glaſs, from the fixed Stars with the Sextant : thoſe of the twelfth day by my a-ſiſtant my ſelf being then very ill of the Stone, the reſt by my ſelf. I took no diſtances on the ſeventeenth day for de-termining their Latitudes not being well able to abide lon-ger in the cold Air : theſe if requiſite may be borrowed for preſent uſe from the *Caroline* tables, which by continual obſervations and experience I find not very much erroneous in the Latitudes of the Planets.

On the 22 day the Planet *Jupiter* was in conſequence of *Saturn* ſomething leſs diſtant from him then he had been obſerved on the fift day near the ſame hour. Hence the middle time betwixt theſe obſervations is point-ed out for the time of their true Conjunction, but to de-termine it more accurately I ſhall examine the obſervations made with the Sextant on the ſeventeenth day which being neareſt the time are moſt proper for this purpoſe.

The correct Longitude of the Heel of *Caſtor* is now ♋ 00 50' 42″ its Latitude 51' 40″ South. The Latitude of *Saturn* by the Caroline tables 56' 20″ of *Jupiter* 41' 30″ both North.

By the aſſumed Latitude of *Saturn* 56' 20″ and his di-ſtance from the Heel of *Caſtor* obſerved and corrected 48° 32' 30″. I find their difference of Longitude 48° 30' 37″ therefore *Saturn* in *Leo* 19° 21' 19″.

By the Latitude of *Jupiter* aſſumed 41' 30″ and his di-ſtance from the Star 48° 45' 20″ : their difference of Lon-gitude 48° 43' 56″ and *Jupiter's* place in *Leo*, 19° 34' 39″.

Hence *Jupiters* place in Conſequence of *Saturns* 13' 20″ with which and the diſtance of their centers obſerved the ſame night 20' 12″, I find the true difference of their La-titudes 15' 20″ but half a Minute different from what I aſſumed it on the Authority of the Tables.

The apparent motion of *Jupiter* from the fourteenth to
the

the eighteenth day of *October* by an Ephemeris exactly cal-
culated and made agreeable to these observations is 29′
16″, of *Saturn* 15′ 01″ both direct, hence the motion of
Jupiter from *Saturn* in four days is 14′ 15″. I say there-
fore as four days motion or 14′ 15″ is to four days or 96
hours . so is 13′ 20″, which *Jupiter* is past the Conjunction
of *Saturn* ; to ninety hours or three days eighteen hours,
the Time interlapsed since the Conjunction, which taken
from the seventeenth day fifteen hours, the time of my ob-
servation gives the true time of the Conjunction of the
two Planets on the thirteenth day One and Twenty hours
after Noon or according to the common account, the four-
teenth day at Nine a Clock in the Morning

At which time *Saturn* is with *Jupiter* in 19° 0′7½ of *Leo*
with 15′½more Northern Latitude.

The *Acta Eruditorum Lipsienfia* Pag. 366 make this Con-
junction to have happened the same day in the same Longi-
tude with the Eleventh Star of *Leo*; whose place they State
in *Leo* 19° 04′ Latitude 6 16′ North, with fourteen Minutes
difference of Latitudes betwixt the two Planets. But their
obfervation feems to have been made onely by the judg-
ment of the bare eye, without an Instrument, which con-
dered, I wonder not that it differs at all, but rather that
the difference is so small from this determination.

1 6 8 3.

On the Nineteenth of *January* following viewing the
Planets then both retrograde with the sixteen foot Glass
I found them approached within a meafurable diftance of
of each other, that Evening I meafured.

1683	h	′			/	″
Jan. 19.	6.	41.	betwixt their Centers		33	28.
		45			rep. 33	24.
		49	Betwixt their remote limbs		33	52.
						Jan.

January the 26 both the Planets being in ☍ to the Sun

	♄	′			′	″
26.	6.	03	betwixt their Centers		15	08.
		7		rep.	15	06.
	7	00	Betwixt their remote limbs		15	31.
		8	By *T. Smith*	rep.	15	29.
		12	Betwixt their Centers		15	05.
		14		rep.	15	02.
		17	Betwixt their next limbs		14	29.
		20		rep.	14	31
		21		again	14	26
	9	24	*Jupiter* from the heel of *Castor*		46 18	10.
		26		rep.	46 18	05.
		28	*Saturn* from the said heel		46 08	50.
		30		rep.	46 08	55.
		37	*Jupiter* from the bright Star of the Lions Head *E*		8 42	05
		39		rep.	8 42	05.
		40 ½	*Saturn* from the same Star		8 29	35.
		42 ½		rep.	8 29	40.
		48	*Jupiter* from the Lions Heart		8 18	00.
		50		rep.	8 17	55.
		52	*Saturn* from the same		8 29	35
		54		rep.	8 29	35.
		59	The Lions Heart from E in the Head		12 58	50.
	10	03	The heel of *Castor* from the Lions Heart		54 34	20.
		8 ½	The heel of *Castor* from E ♌		46 24	45.

Which last Three Distances are exactly the same I had measured them on the 24. at night.

	♄	′			′	″
Jan. 30.	5.	28	Betwixt their Centers		11	36.
		30		rep.	11	33.
		34	Betwixt their remote limbs		11	58.
		36		rep.	12	01.
		38	Betwixt their next limbs		11	01.
	5.	41		rep.	11	00.

					′	″
*Feb.*7.	7.	37	betwixt their Centers		28	35.
		40		rep.	28	34.

The

The diſtances of the two Planets from each other as alſo from the fixed Stars were taken at other intermediate times betwixt theſe, as often as the Clouds and ill weather of the ſeaſon would permit, but I tranſcribe them not, eſteeming theſe ſufficient for my purpoſe, which is to ſhew the true times of their apparent Conjunctions with their viſible places then.

From obſervations formerly made, I have determined the true places and Latitudes to this preſent time of

	s	o	'	''		o	'	''	
The Heel of *Caſtor*.	♋	0	51	10.	Lat.	0	51	40	*South*.
Bright * in the Lions head.	♌ *Leo*	16	15	27		9	41	07	*North*.
Lions Heart.	*Leo*	25	24	45		0	26	20	*North*.

And from the above recited Meaſures, the true diſtances of the Planets from theſe Stars *January* the 26th. at 9ʰ 40' p. m. as follows.

	o	'	''
Saturn from the Heel of *Caſtor*.	46	09	00
Jupiter from the ſame.	46	18	10
Saturn from the Lions Heart.	8	29	40
Jupiter from the ſame.	8	18	00
Saturn from the bright * in the Lions head, E	8	29	40
Jupiter from the ſame	8	42	10

Whence I collect the true places at this time.

	s	o	'	''			'	''
Of *Saturn*.	*Leo*	16	57	10.	Latitude.	1	13	10.
Of *Jupiter*.	*Leo*	17	07	10.	Latitude.	1	01	30.
Difference of *Longitude*.		10	00.	of *Latitude*.	11	40.

The Retrograde motion of *Jupiter* from *Saturn* in four days, betwixt the twenty ſixth and thirtieth of this Month, by my correct Ephemeris is 12' 15''. I ſay therefore as 12' 15'' is to four days or 96 hours; ſo is 10' 00'' the difference of the Planets preſent Longitudes to 78 hours or three days ſix hours, which therefore added to the time of that obſervation *January* the 26ᵈ 9ʰ ½ gives the true time of the

Con-

♂ *Jan* 29. 16. hours after noon or according to the common account *January* the 30. at Four a Clock in the Morning

At which time both the Planets are in ♌ 16. 41. ⅔ with 11½ min. difference of Latitude or Diſtance from each other. Which is further confirmed by the meaſured diſtances of the Planets on the 30 at night before recited.

On the 26. day at 9^h 40ꞌ the ſuns true place was by my Tables in ♒ 17° 21'½ ſo that He was now about ⅔ of a degree paſt their oppoſition.

Towards the latter end of the following *April* the Planet *Jupiter* began to approach *Saturn* again both being now direct ; the Twenty Eighth at night with the Sixteen foot glaſs and micrometer I meaſured the diſtances

	♄	ꞌ			ꞌ	ꞌꞌ
April 28.	10	21	Betwixt their Centers	0	32	35
		23		rep.	32	33
		24	Betwixt their uext limbs		32	04
		26		rep.	32	02
	10	29	Betwixt their remote limbs		33	22
			This laſt not accurate, Clouds interpoſing			
May 7	8	59	*Jupiter* from the Lions Heart	10	59	00
	9	01		rep. 10	59	00
		3½	*Saturn* from the Lions heart	10	58	50
		5		rep. 10	58	50
		11	*Jupiter* from E in the Lions head	8	55	35
		15		rep. 8	55	40
		17	*Saturn* from the ſame Star	8	39	40
		18		rep. 8	39	40
			With the Micrometer			
		30	Betwixt their Centers		15	38
		33		rep.	15	37
		35	Betwixt their next limbs		15	03
		36		rep.	15	00
		40	Betwixt their remote limbs		16	02
		42		rep.	15	58
			With the Sextant again			
	10	20	*Jupiter* from B in ♍	38	11	45
						23

23   rep. 38 11 4
26 *Saturn* from the fame Star   38 10 55
28   38 10 45
Ma^y 11 9^h 28' Betwixt their Centers   20' 02''
31   rep. 20 02

16 9 22 Betwixt their Centers   dub.   34 04

From thefe Obfervations I ftate the Diftances of the Planets from the fixed Stars *May* the Seventh at 9¹ 5¹ P. M. as follows.

Saturn from the Lyons heart   10 58 50
Jupiter from the fame   10 59 00
Saturn from E in the Lyons head   8 39 40
Jupiter from the fame   8 55 35
Hence the true Longitude of *Sat.* ♌ 14 27' 42'' Lat. 1° 12' 46'' North
           of *Jupiter* ♌ 14 26 37 Lat. 0 56 43 North
Difference of Longitude   1 04 Lat.   16 03

The Difference of Latitueds fomething exceeds the Diftance meafured with the Micrometer, by reafon that the Wind then fhaking the Sextant permitted us not to be fo exact as ufually, but the difference, being lefs than half a minute, I efteem inconfiderable.

The diurnal motion of *Jupiter* from *Saturn* was now 3' 15'', it holds therefore as 3' 15'' one days motion, is : to one day or Twenty Four hours : fo 1 '04'' the Diftance of *Jupiter* from the ☌ with *Saturn* to Eight hours, the interval betwixt the obfervation and following Conjunction, which was therefore 17^h after Noon, or according to the vulgar reckoning, *May* the Eighth at Five a Clock in the Morning.

At which time the true place of the Planets is ♌ 14° 28'¼ the difference of their Latitudes 15' 40'' *Saturn* being fo much more Northerly than *Jupiter*

In all or beft efteemed Aftronomical Tables extant the mean motions of the Planet *Saturn* are too fwift, or *Jupiter* too flow con-

confiderably, hence it came to pafs that they made the direct Conjunctions fome days later, the Retrograde earlyer then they were found by obfervation.

Argolus gives the firft Conjunction *October* the Twentieth at Noon, in ♌ 19° 55'. above fix days later and 48 min. forwarder in the Ecliptick than it appeared. The fecond *January* the Nineteenth at Midnight in ♌ 17 · 56' above ten days earlier than it was obferved, and 1½ deg. fhort of its true place in the Ecliptick. The laft Conjunction he hath *May* the Sixteenth in the Evening in ♌ 15° 35', Nine days later than it really was, and in above 1 deg. lefs Longitude.

		h	'
By *Keplers* Rudolphine Tables *January* 26		9	40
The place of *Saturn* is ♌ 17° 21' 10'' his Latitude	1° 11' 18'' N		
but was obferved ♌ 16 57 10 his Latitude	1 13 10		
Difference 24 co	1 52		
The place of *Jupiter* ♌ 16 51 29 Latitude	1 04 28		
obferved ♌ 17 07 10	1 01 30		
Difference 15 41	2 58		

The Errors of the Caroline and Britifh Tables of our Countrymen are fomewhat lefs than thefe, but other Tables generally differ more, as thofe that are defirous to be informed will find by compareing their own Calculations with the Obfervations before recited.

Riccioli in the Second part of the firft Tome of his *Almageft*, has given us a Table of all the mean Conjunctions of the Two Superiors from the Creation to the year of Chrift 2358. but very Coufe and incorrect. I have therefore made a New one for 43 Revolutions which are Compleated 853 Julian Years, and 235 days from their correct mean Motions. This being the Period of the greateft Conjunctions after which fpace of time they return to the fame place of the Zodiack within ⅓ of a degree.

The Ordinary Conjunctions happen once in Twenty Years or more precifely in 19. Julian Years and 312. days, in which time

time *Saturns* mean motion is 8^s 02° $48'$ $\frac{1}{3}$, *Jupiter's* the fame above one Revolution.

I hefe are commonly termed the Leffer of the great Conjunctions, which continue in Signs of the fame Triplicity for 10. Revolutions to each other or 198 Years: each Conjunction according to the mean Motions being 8^s 02° $48'$ $\frac{1}{2}$ removed from the Preceding, fo that if any Conjunction was made upon the firft point of ♈ the next following fhall be in 10 48' of ♐ and all the following for 198 years fhall fall in ♈ ♌ and ♐, figns of the fame Triplicity.

But the Eleventh Conjunction after fhall happen in the firft degree of ♍ and the following ten Conjunctions in ♉ ♍ and ♑, Signs of the fame Triplicity. Of thefe the Firft is called by our Aftrologers the Greater Conjunction.

But the greateft is, when after 43 Conjunctions compleated in 853 years 235 days, the mean Conjunctions having been made in all the figns return to that point of the *Ecliptick* from whence they began : tho I muft confefs had I been to name them I fhould have called thofe the *Greateft* which happen in the figns ♋ and ♌ becaufe then the Planets rife higheft, and are longeft vifible in our Horizon, as alfo being near their North Nodes, they approach neareft, and if they have any extraordinary influence (which *Naboyd* thinks either they have nor, or if they have, we und rftand nor) it muft according to their Axiomes be ftrongeft.

Thofe which happen in ♑ and ♒ I fhould call the *Greater* or *Middle*, becaufe the Planets being then near their South Nodes, may approach each other again very nearly tho they rife not high in our Horrizon, being in Southern figns ; the reft might be accounted the *Leffer* or *Ordinary*.

The mean Conjunction of *Saturn* and *Jupiter* this year 1683. was on the Fourteenth day of January old tile at 12 hours after Noon in the Meridian of *London*, at which time the mean motions of both the Planets were 4^s 11° $45'$

this

this may be the Radix for the Following Table.

By which to find the time of any mean Conjunction paſt or future neareſt to any place of the Zodiack *For times paſt*, ſubſtract the Longitude of the given place from the Longitude of the Radix 4ˢ 11º 45′ the reſidue ſeek in the laſt Column of the Table; if you find not the preciſe number take the next to it, againſt this you have in the ſecond Column the years and days, and in the fiiſt the number of Conjunctions paſt ſince any was made in that place, Subſtract the years and days frcm 1683 *January* the Fourteenth and the motion from 4ˢ 11º 15′ ſo have you the true time of the mean Conjunction, and Longitudes of the Planets hen.

But *For Times to come* Subſtract the Radix from the given place ſ ſeek the Reſidue as before in the laſt Column ; if you find it not, take that you find neareſt itſ againſt which, as beforeꝰ you have in the ſecond Column, the years and days ; in the firſt, the Revolutions future, for Example.

If it were required to know when the laſt Conjunction in the firſt degree of ♒ Subſtracting ♒ or Ten ſigns from 4ˢ 11º 15′ the reſidue is 6ˢ 11º15′ which ſeeking I cannot find in the Third Column of the Table, but I find 6ˢ 12º 56′ which is not two degrees more, and againſt them 516. years 57 days, and in the firſt Column 26. for the number of Conjunctions interlapſed. Subſtracting 516 years 57. days from 1683 *Jan.* 14. there remains 1166 years 322. days, which ſhews me that the Conjunction was in the year 1166 *Nov.* 18. and Subſtracting the motion 6ˢ 12º 56′ from 4ˢ 11ꞌ45′ it points me to the place in 9ₛ 28º 49′.

Or if the time of the firſt Conjunction in ♎ to come were demanded. I ſubſtract the Radix 4ˢ 11º 45′ from Six Signs the reſidue 1ˢ 17º 15′ I ſeek in the Table but find it not, I take therefore the next to it 1ˢ 20º 29′ the next to it againſt which ſtands 357 years 124 days theſe added to 1683 *January* 14 give me the year 2040 and 138 days *May* the 18 for the time of this Conjunction and adding

the

the 1^s 20° 20' to 'the Radix 4^s 11° 45' it makes 6^s 02° 14' for the true mean Longitude of this Conjunction.

From the mean Conjunction the Apparent may be found by the help of Planetary Inftrument, or the ufual Aftronomical Tables; but the method I leave to the Judgment of the Skilful Artift, onely advifeing him that in ftateing thefe Conjunctions I have not made ufe of any extant Tables, but of fuch Numbers as I have corrected by very late Obfervations compared with the Ancient.

J. F.

The Obfervatory
July 25.
1683.

A Table

A Table of the mean Conjunctions of Saturn and Jupiter with their Intervalls in time and Motion.

Revolutions cōplete.	Years	daies.	Motion. s	o	'	Revolution cōplete.	Years	daies	Motion. s	o	'
1	19.	312	6.	02.	48	25	496.	111	10.	10.	08
2	39.	258	4.	05.	37	26	516.	57	0.	12.	56
3	59.	204	0.	08.	25	27	536.	3	2.	15.	44
4	79.	150	6.	11.	13	28	555.	315	10.	18.	32
5	99.	096	4.	14.	01	29	575.	261	6.	21.	21
6	119.	42	0.	16.	50	30	595.	207	2.	24.	09
7	138.	35?	6.	19.	38	31	615.	153	10.	26.	57
8	158.	299	4.	22.	26	32	635.	99	6.	29.	45
9	178.	245	0.	25.	15	33	55?.	45	3.	02.	34
10	198.	191	8.	28.	03	34	674.	350	1.	05.	22
11	218.	137	5.	00.	51	35	694.	302	7.	08.	10
12	238.	83	1.	03.	40	36	714.	248	.	10.	59
13	258.	29	9.	06.	28	37	734.	194	11.	13.	47
14	277.	340	5.	09.	16	38	754.	140	7.	16.	35
15	297.	286	1.	12.	04	39	774.	86	3.	19.	24
16	317.	2?2	9.	14.	5?	40	794.	3	1.	22.	12
17	337.	178	.	17.	41	41	813,	342	7.	25.	00
18	357.	124	.	20.	29	42	833.	289	3.	27.	49
19	377.	70	0.	23.	18	43	853.	235	0.	00.	37
20	397.	16	5.	26.	06						
21	416.	327	1.	28.	54						
22	436.	273	10.	01.	43						
23	456.	21?	6.	04.	31						
24	4?6.	?6?	?7.	1?							